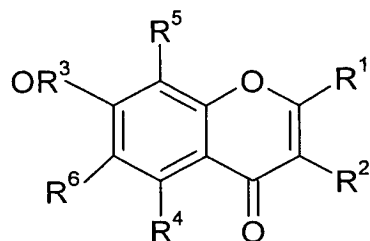
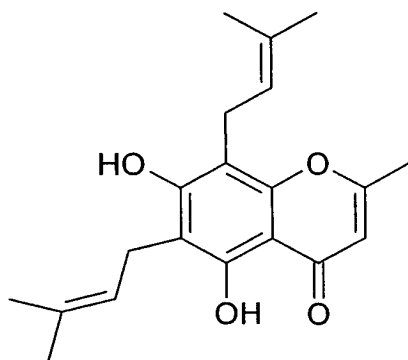


# Patent Claims

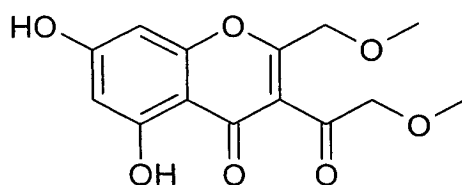
1. Compound selected from the compounds of the formula Ia-Ic



Ia



Ib



Ic

where

R<sup>1</sup> and R<sup>2</sup> may be identical or different and are selected from

- H, -C(=O)-R<sup>7</sup> and -C(=O)-OR<sup>7</sup>,
- straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl groups,
- straight-chain or branched C<sub>3</sub>- to C<sub>20</sub>-alkenyl groups, straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-hydroxyalkyl groups, where the hydroxyl group may be bonded to a primary or secondary carbon

atom of the chain and furthermore the alkyl chain may also be interrupted by oxygen, and/or

- C<sub>3</sub>- to C<sub>10</sub>-cycloalkyl groups and/or C<sub>3</sub>- to C<sub>12</sub>-cycloalkenyl groups, where the rings may each also be bridged by -(CH<sub>2</sub>)<sub>n</sub>- groups, where n = 1 to 3,

R<sup>3</sup> stands for H or straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl groups,

R<sup>4</sup> stands for H or OR<sup>8</sup>,

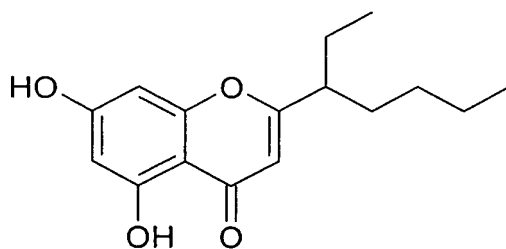
R<sup>5</sup> and R<sup>6</sup> may be identical or different and are selected from

- -H and -OH,
- straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl groups,
- straight-chain or branched C<sub>3</sub>- to C<sub>20</sub>-alkenyl groups,
- straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-hydroxyalkyl groups, where the hydroxyl group may be bonded to a primary or secondary carbon atom of the chain and furthermore the alkyl chain may also be interrupted by oxygen, and

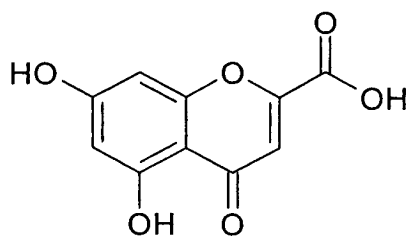
R<sup>7</sup> stands for H, straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl groups, a polyhydroxyl compound, such as, preferably, an ascorbic acid radical or glycosidic radicals, and

R<sup>8</sup> stands for H or straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl groups, where one of the radicals R<sup>1</sup> and R<sup>2</sup> stands for H or a straight-chain or branched C<sub>1-20</sub>-alkyl group and the other radical stands for -C(=O)-R<sup>7</sup>, -C(=O)-OR<sup>7</sup> or a straight-chain or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl group, and at least one of the radicals R<sup>3</sup> and R<sup>4</sup> does not stand for H if R<sup>7</sup> equals H.

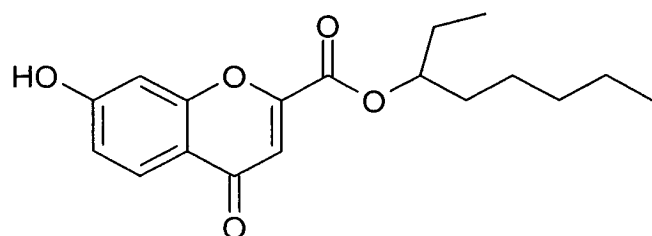
2. Compound according to Claim 1, characterized in that the compound of the formula Ia is a compound selected from the compounds of the formulae Id-Im:



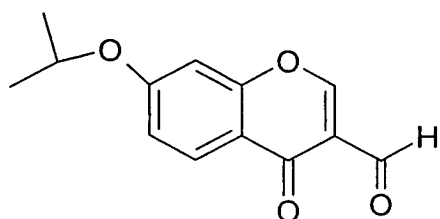
Id



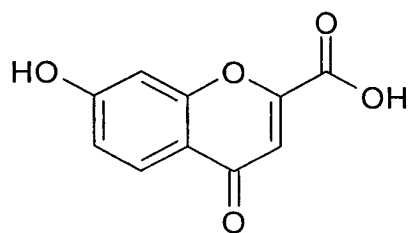
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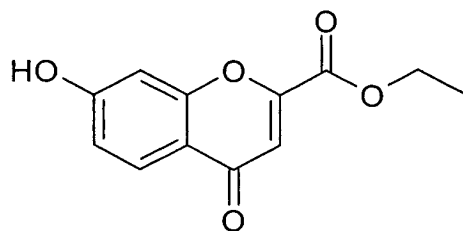
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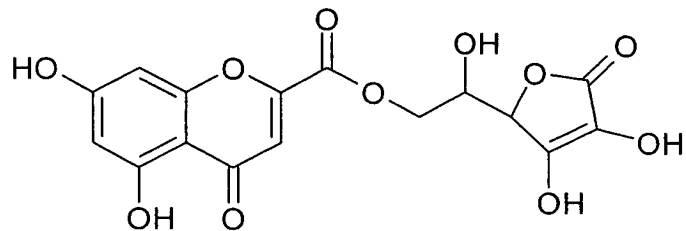
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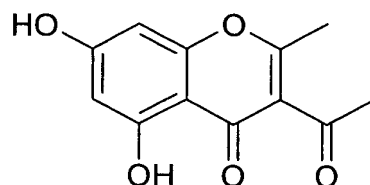
lh



li



lk



Im

3. Compound according to Claim 1, characterized in that at least 2 of the substituents  $R^1$ ,  $R^2$ ,  $R^4$ - $R^6$  are different from H.
- 5 4. Compound according to Claim 1, characterized in that one substituent from  $R^1$  and  $R^2$  stands for  $-C(=O)-R^7$  or  $-C(=O)-OR^7$ .
- 10 5. Compound according to at least one of the preceding claims, characterized in that  $R^3$  stands for H and  $R^4$  stands for OH, where in addition at least one of the radicals  $R^5$  and  $R^6$  preferably stands for OH.
- 15 6. Compound according to at least one of Claims 1 to 4, characterized in that  $R^5$  and  $R^6$  stand for H.
- 20 7. Use of at least one compound of the formula Ia to Im or of a composition comprising at least one compound of the formulae Ia to Im containing radicals according to at least one of Claims 1 to 6 for the care, preservation or improvement of the general state of the skin or hair.
- 25 8. Use of at least one compound of the formula Ia to Im or of a composition comprising at least one compound of the formulae Ia to Im containing radicals according to at least one of Claims 1 to 6 for prophylaxis against time- and/or light-induced ageing processes of the human skin or human hair, in particular for prophylaxis against dry skin, wrinkle formation and/or pigment defects, and/or for the reduction or prevention of the harmful effects of UV rays on the skin.

9. Use of at least one compound of the formula Ia to Im or of a composition comprising at least one compound of the formulae Ia to Im containing radicals according to at least one of Claims 1 to 6 for prophylaxis against or reduction of skin unevenness, such as wrinkles, fine lines, rough skin or large-pored skin.

10. Use of at least one compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6 for the preparation of a composition which is suitable for the prophylaxis and/or prevention of premature skin ageing, in particular for the prophylaxis and/or prevention of light- or ageing-induced wrinkling of the skin, for the reduction of pigmentation and keratosis actinica, and for the prophylaxis and/or treatment of all diseases which are associated with normal skin ageing or light-induced ageing of the skin.

11. Use of at least one compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6 for the preparation of a composition which is suitable for the prophylaxis and/or treatment of skin diseases which are associated with defective keratinisation relating to differentiation and cell proliferation, in particular for the treatment of acne vulgaris, acne comedonica, polymorphic acne, acne rosaceae, nodular acne, acne conglobata, age-related acne, acne occurring as a side effect, such as acne solaris, medicament-related acne or acne professionalis, for the treatment of other defects of keratinisation, in particular ichthyosis, ichthyosiform states, Darier's disease, keratosis palmoplantaris, leukoplakia, leukoplakiform states, skin and mucosal (buccal) eczema (lichen), for the treatment of other skin diseases which are associated with defective keratinisation and have an inflammatory and/or immunoallergic component, and in particular all forms of psoriasis relating to the skin, mucous membranes and finger- and toenails, and psoriatic rheumatism and skin atopy, such as eczema, or respiratory atopy, or also hypertrophy of the gums.

12. Use of at least one compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6 for the preparation of a composition which is suitable for the prophylaxis and/or treatment of

all benign or malignant excrescence of the dermis or epidermis, which may be of viral origin, such as verruca vulgaris, verruca plana, epidermodysplasia verruciformis, oral papillomatosis, papillomatosis florida, and excrescence which may be caused by UV radiation, in particular epithelioma baso-cellulare and epithelioma spinocellulare.

13. Composition comprising at least one compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6, and at least one further skin-care ingredient and at least one carrier which is suitable for topical applications.
14. Composition according to Claim 13, characterised in that the composition comprises one or more compounds of the formula Ia to Im in an amount of from 0.01 to 20% by weight, preferably in an amount of from 0.1 to 10% by weight.
15. Composition according to at least one of the preceding claims, characterised in that at least one further skin-care ingredient is one or more antioxidants and/or vitamins, preferably selected from vitamin C and derivatives thereof, DL- $\alpha$ -tocopherol, tocopherol E acetate, nicotinic acid, pantothenic acid and biotin, the composition preferably comprising no retinol derivative.
16. Composition according to at least one of the preceding claims, where the composition comprises one or more UV filters, which are preferably selected from the group consisting of 3-(4'-methylbenzylidene)-dl-camphor, 1-(4-tert-butylphenyl)-3-(4-methoxyphenyl)propane-1,3-dione, 4-isopropylidibenzoylmethane, 2-hydroxy-4-methoxybenzophenone, octyl methoxycinnamate, 3,3,5-trimethylcyclohexyl salicylate, 2-ethylhexyl 4-(dimethylamino)benzoate, 2-ethylhexyl 2-cyano-3,3-diphenylacrylate, 2-phenylbenzimidazole-5-sulfonic acid and potassium, sodium and triethanolamine salts thereof.
17. Composition according to at least one of the preceding claims, characterised in that at least one further skin-care ingredient is a pyrimidinecarboxylic acid and/or aryl oxime, preferably ectoine.

18. Process for the preparation of a composition, characterised in that a compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6 is mixed with a cosmetically or dermatologically or food-suitable carrier.

19. Process for the preparation of a compound of the formula Ia to Im containing radicals according to at least one of Claims 1 to 6, characterized in that the preparation is carried out by cyclization of a correspondingly substituted o-hydroxyacetophenone using a suitable anhydride or using a suitable acyl chloride.